

REMARKS

In the Final Office Action, the Examiner rejected claims 1, 3, 4, 6, 11-17, 20-23, and 26-33 under 35 U.S.C. § 112, second paragraph, for indefiniteness; rejected claims 1, 3-4, 5-6, 8-9, 11-13, 15-17, 20-24, 26-30, and 32 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,304,556 to Haas in view of U.S. Patent No. 6,980,537 to Liu; and rejected claims 4, 7, 10, 14, and 31 under 35 U.S.C. § 103(a) as unpatentable over Haas, Liu, and U.S. Patent No. 6,751,455 to Acampora.

By this amendment, Applicants amend claims 1, 5, 8, 11, 15, 20, 22, 24, and 26-29 to more clearly define the features of those claims. Applicants submit that the amendments are supported by the specification.

Regarding the rejection under 35 U.S.C. § 112, second paragraph, Applicants submit that the amendments herein obviate the basis for this rejection.

The Examiner rejects claims 1, 3-4, 5-6, 8-9, 11-13, 15-17, 20-24, 26-30, and 32 under 35 U.S.C. § 103(a) as unpatentable over Haas in view of Liu. Applicants respectfully traverse this rejection.

Claim 1, as amended, recites a combination including, among other things, "a first-tier mesh, a second-tier mesh, and a third-tier mesh, wherein the first-tier mesh, the second-tier-mesh, and the third-tier mesh operate and communicate according to different mesh architectures based on at least two of a point-to-point-mesh architecture, a pre-configured-mesh architecture, and an ad-hoc-mesh architecture, the first-tier mesh, the second-tier mesh, and the third-tier mesh configured as separate networks." Neither Haas nor Liu discloses a three-tier structure, much less this noted feature of

claim 1.

Instead, Haas discloses, at best, a first tier of clusters and a second tier comprising cluster heads. Therefore, Haas clearly lacks the three-tier structure, much less the above-noted feature of claim 1. Haas FIG. 3 is reproduced below.

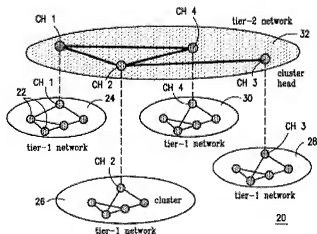


FIG. 3

Moreover, although Liu discloses three tiers, Liu's three tiers lack the structural features recited in claim 1. For example, Liu's third tier 170 constitutes a single, "super node" rather than a mesh of nodes. Liu's FIG. 8 is reproduced below.

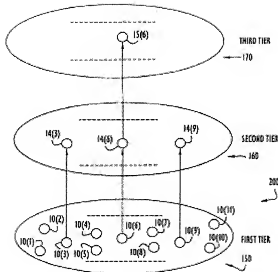


FIG. 8

In view of the foregoing, neither Haas nor Liu disclose or suggest at least the following feature of claim 1: "a first-tier mesh, a second-tier mesh, and a third-tier mesh, wherein the first-tier mesh, the second-tier-mesh, and the third-tier mesh operate and communicate according to different mesh architectures based on at least two of a point-to-point-mesh architecture, a pre-configured-mesh architecture, and an ad-hoc-mesh architecture, the first-tier mesh, the second-tier mesh, and the third-tier mesh configured as separate networks." Therefore, claim 1 is allowable over Haas and Liu, whether taken alone or in combination, and the rejection under 35 U.S.C. § 103(a) of claim 1, as well as claim 21 at least by reason of its dependency, should be withdrawn.

Moreover, the Examiner improperly alleges that Haas's CH3 (at FIG. 3) discloses the second tier sink node. Applicants disagree because a close scrutiny of Haas reveals that Haas does not disclose what the Examiner alleges. At best, Haas discloses first tier cluster nodes, which also comprise the second-tier nodes. But the

Haas second tier nodes are merely nodes rather than the cluster nodes for the second tier as the Haas second tier nodes do not provide communication to a third tier. Therefore, Haas fails to disclose "wherein ... the second-tier sink node further configured to communicate with the first-tier sink node of said first-tier mesh and configured to communicate via the third-tier." Moreover, Liu fails to cure this noted deficiency.

Regarding the motivation to combine, although Liu discloses a third tier 170, Liu ***teaches away*** from claim 1 by using a single "super node" rather than a mesh, as noted above.¹ Therefore, one of ordinary skill in the art would not be motivated to make the Haas and Liu combination proposed by the Examiner. Therefore, the rejection under 35 U.S.C. § 103(a) of claim 1, as well as claim 21 at least by reason of its dependency, should be withdrawn for this additional reason.

Independent claims 5, 8, 11, 15, 20, 22, 24, and 26-29, although of different scope, include features similar to some of those noted above with respect to claim 1. For at least the reasons given above, the rejection under 35 U.S.C. § 103(a) of claims 5, 8, 11, 15, 20, 22, 24, and 26-28, as well as claims 3, 6, 9, 12, 13, 16-17, 23, 25, 30, 32, and 33 at least by reason of their dependency, should be withdrawn.

¹ MPEP §2141.02 further notes that "a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

The Examiner rejected claims 4, 7, 10, 14, and 31 under 35 U.S.C. § 103(a) as unpatentable over Haas, Liu, and Acampora. Applicants respectfully traverse this rejection.

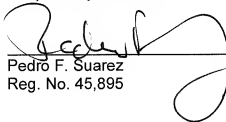
Claims 4 and 7 each depend from claim 22 and include all the features recited therein including, among other things, “at least one first-tier node, wherein the at least one first-tier node is configured to form a first-tier mesh, and the apparatus is configured to communicate data within the first tier with at least selected others of the at least one first-tier node and to communicate data with a second-tier sink node of a second-tier-mesh, and wherein the second-tier sink node communicates with a point-to-point mesh separate from the first-tier mesh and the second-tier mesh.” As noted above, neither Haas nor Liu disclose the “second-tier sink node.” Moreover, although Acampora discloses wired and wireless communications, Acampora does not cure the noted deficiencies of Haas and Liu. Moreover, claims 10, 14, and 31, although of different scope, include features similar to those noted above. Therefore, claims 4, 7, 10, 14, and 31 are allowable over Haas, Liu, and Acampora, whether taken alone or in combination, and the rejection under 35 U.S.C. § 103(a) of those claims should be withdrawn for this additional reason.

CONCLUSION

On the basis of the foregoing amendments, the pending claims are in condition for allowance. It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper.

No fee is believed to be due, however, the Commissioner is hereby authorized to charge any additional fees that may be due, or credit any overpayment of same, to Deposit Account 50-0311, Reference No. 39700-510001US. If there are any questions regarding reply, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,



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